

VERSION SHOWING THE CHANGES TO THE CLAIMS

This listing replaces all prior listings of the claims.

IN THE CLAIMS:

Amend the claims as follows:

1 (Currently amended) An organic electronic component comprising:

a substrate;

a patterned electrically conductive electrode lower layer on and contiguous with a surface of the substrate, the lower layer being formed as a plurality of spaced apart sets of electrodes wherein each set comprises spaced apart source/drain electrodes;

an arrangement on and contiguous with a region of the substrate located between at least two of the sets of said electrodes, the arrangement for precluding the wetting of that substrate region by a subsequently applied organic functional semiconducting layer and to thereby minimize current leakage between the two sets of electrodes; and

with a patterned upper functional organic semiconductor layer having a thickness of at most about 100 nm deposited on, over and contiguous with the at least two sets of electrodes and on, over, and contiguous with the substrate surrounding the at least two sets of the electrodes to thereby embed the at least two sets of electrodes in the semiconductor layer one of a lower layer and a substrate layer wherein there is substantially no semiconductor layer overlying or contiguous with the substrate in said region of the substrate the component being formed by patterning the upper functional layer by treatment of the one layer in which a first partial region of the one layer is wetted by the upper functional layer when applied to the one layer and a second partial

~~region of the one layer is not wetted by the deposited upper layer and therefore is free of the functional layer to thereby pattern the upper functional layer on the lower layer.~~

2 (Currently amended) The organic electronic component as claimed in claim 1, further including an electrically insulating layer over the semiconductor layer and the region and a gate electrode over each set of said drain/source electrodes ~~in which the patterned functional layer is a semiconducting functional layer.~~

Claims 3 -5, canceled.

6 (Currently amended). An organic electronic component comprising:

a substrate;

a lower layer forming a set of spaced apart drain/source electrodes defining a first area of a given peripheral extent on and contiguous with the substrate ~~one of a lower functional layer and a lower substrate layer having a predetermined area; and~~

a second area of the substrate external the given peripheral extent defining a given substrate region;

an arrangement on the given substrate region for precluding the wetting of that given substrate region by a subsequently applied organic functional semiconducting layer;

the arrangement for forming the semiconductor layer into a patterned functional organic semiconductor upper layer on and contiguous with the substrate in a portion thereof between the second area and the electrodes and overlying and contiguous with the electrodes to thereby embed the electrodes in the semiconductor layer, the second

area of the substrate being non-wetted by the semiconductor layer and thereby free of the semiconductor layer ~~the one lower layer having a thickness at most of about 100 nm, the one lower layer including an arrangement to prevent wetting by the upper layer in the predetermined area as the patterned functional upper layer is applied to the one lower layer including the predetermined area so that the upper layer only partially wets the lower layer to form a lower layer region free of the upper layer in the predetermined area;~~

an electrically insulating layer over and contiguous with at least the semiconductor layer;

an electrically conductive gate electrode over and contiguous with the insulating layer to thereby form a first field effect transistor (FET) with the semiconductor layer and the insulating layer; and

a further FET on and contiguous with the substrate and spaced from the first FET by said region to thereby minimize leakage currents across said region between said first and further FETs.

Claim 7, canceled.

8. (Currently amended) ~~The~~An electronic organic component according to claim 1 further including an electrically insulating layer over the semiconductor layer and the region and a gate electrode over each set of said drain/source electrodes wherein the a set of electrodes, the semiconductor layer and a gate electrode each form an organic field effect transistor (FET) on the substrate to thereby form a plurality of FET transistors, and further including at least one conductor for electrically coupling the

plurality of FET transistors into a common circuit ~~one lower layer includes an~~
arrangement to prevent the wetting by the upper layer and wherein the region exhibits
negligible current leakage from and to the FET transistors in the circuit.

9 (Currently amended) An organic component according to claim 6 [[7]] including a
plurality of said FET transistors on said substrate and electrically conductively
interconnected to form a circuit and wherein each said FET is spaced from an adjacent
FET by a region which exhibits said minimized leakage currents.

10 (Currently amended). A method for producing an organic electronic component
comprising:

forming a substrate;

forming a lower layer on and contiguous with the substrate as a set of spaced
apart drain/source electrodes defining a first area of a given peripheral extent;

forming a second area of the substrate external the given peripheral extent
defining a given substrate region;

forming an arrangement on the given substrate region for precluding the wetting
of that given substrate region by a subsequently applied organic functional
semiconducting layer;

causing the arrangement to form the semiconductor layer into a patterned
functional organic semiconductor layer on and contiguous with the substrate in a portion
thereof between the second area and the electrodes and overlying and contiguous with
the electrodes to thereby embed the electrodes in the semiconductor layer, the second

area of the substrate being non-wetted by the semiconductor layer and thereby free of the semiconductor layer;

applying an electrically insulating layer over and contiguous with at least the semiconductor layer;

forming an electrically conductive gate electrode over and contiguous with the insulating layer to thereby form a first field effect transistor (FET) with the semiconductor layer and the insulating layer; and

forming a further FET on and contiguous with the substrate and having drain/source electrodes spaced from the drain/source first FET by said region wherein said region thereby minimizes leakage currents there across between said first and further FETs

~~forming one of a lower functional layer and a lower substrate layer;~~

~~applying an upper functional layer to the one lower layer; and~~

~~preventing the applied upper functional layer from wetting the one lower layer in at least a portion of the one lower layer to form the applied upper layer into a pattern on the one lower layer.~~

11 (Currently amended). The method of claim 10 wherein the forming the arrangement ~~preventing step~~ includes printing a resist layer on the given substrate region ~~portion of the lower layer~~.

12 (Currently amended). The method of claim 10 wherein the forming the arrangement ~~comprises preventing step~~ includes printing a treatment on the given substrate region ~~portion of the lower layer~~.

13 (Currently amended). A circuit formed of organic ~~functional~~ field effect (FET)

transistors comprising organic functional layers, the circuit comprising:

a substrate; and

a plurality of adjacent organic FETs ~~electronic components~~ on and contiguous
with a surface of the substrate, each FET-component comprising one or more
electrically conductive functional layer electrodes forming a drain and a source
electrode for each FET on and contiguous with the substrate and a patterned organic
semiconducting layer on and contiguous with the one or more of the drain/ source
electrodes and on and contiguous with a portion of the substrate surface about the
drain/source electrodes;

an arrangement on and contiguous with the substrate surface between each of
the drain/source electrodes of the next adjacent FETs for precluding the wetting of the
substrate by the semiconducting layer to thereby form the pattern of the semiconductor
layer on the substrate with the region of the arrangement being free of the
semiconductor layer;

~~the patterned semiconducting functional layer having a thickness no greater than~~
~~about 100 nm~~, the patterned semiconducting functional layer having an electrical
interruption between next adjacent components formed by the arrangement precluding
the wetting of the substrate by the semiconductor layer, the interruption for minimizing
current leakage between the drain/source electrodes of the next adjacent FETs.

14 (Currently amended). The circuit of claim 13 wherein the electrical interruption
comprises a semiconducting free area on the substrate.

Claims 15-17, canceled.

18 (Currently amended). The circuit of claim 13 ~~17~~ wherein the arrangement includes a resist on the substrate.

19 (Currently amended). The circuit of claim 13 ~~17~~ wherein the arrangement includes a surface treatment applied to the substrate in the free area for said preventing.